UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,029	07/25/2003	Takaaki Nonaka	JP920020094US1 (600)	3361

46320 7590 03/03/2011

CAREY, RODRIGUEZ, GREENBERG & PAUL, LLP
STEVEN M. GREENBERG
950 PENINSULA CORPORATE CIRCLE
SUITE 2022
BOCA RATON, FL 33487

EXAMINER	
FLEISCHER, MARK A	

ART UNIT	PAPER NUMBER
3624	

MAIL DATE	DELIVERY MODE
03/03/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/628,029
Filing Date: July 25, 2003
Appellant(s): NONAKA, TAKAAKI

Steven M. Greenberg
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9 December 2010 appealing from the Office action mailed 9 June 2010.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1, 3 – 8 and 10 – 15 are pending in the Application and have been rejected at least twice.

Claims 2 and 9 have previously been cancelled.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6,816,902	Bandat, et al.	11-2004
"CONTINUOUS BUSINESS PROCESS MANAGEMENT WITH HOLOSOFX BPM SUITE AND IBM MQSeries WORKFLOW", IBM Redbooks	Deborin, Eugene et al., hereinafter "Deborin".	5-2002
WORKFLOW REDESIGN THROUGH CONSOLIDATION IN INFORMATION- INTENSIVE BUSINESS PROCESSES" 1997 International Conference on Information Systems archive, Proceedings of the eighteenth international conference on Information systems	Dewan, R., Seidmann, A., Walter, Zhiping	1997

(9) Grounds of Rejection

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

   (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1–15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandat, et al. (US 6816902 B1) in view of Deborin, *et al.*, (*Continuous Business Process Management with HOLOSOFX BPM Suite and IBM MQSeries Workflow*) and further in view of Dewan, et al., (*Workflow Redesign Through Consolidation…*).

Claims 1, 5, 8 and 12:

Although claims 1, 5, 8 and 12 are worded and/or structured slightly differently, they have the same scope and so are addressed together. Bandat discloses and/or describes the following limitations as shown.

A workflow system comprising (Bandat's invention is entitled: "Method and system for improving **workflow** performance in **workflow** application systems" where a "workflow application system" is a 'workflow system')*:*

- *operating computer terminals executing a workflow* (See at least Bandat [0029]: "communication between the central server and client workstations…" is described. Workstations are equivalent to 'operating computer terminals')*; and*
- *a workflow server connected with said operating computer terminals through a network to manage the workflow, wherein said workflow server consolidates information necessary for processing in multiple consecutive nodes to be processed by at least one participant operating one of said operating computer terminals* (Bandat [6,59] states "This implies that islands on one workstation can be executed consecutively by different user-names or user-roles, were one person may also act in different user roles.", hence corresponds to *at least one participant operating one of said...terminals.* See at least Bandat [abstract]: "The invention identifies areas in a **workflow** graph that operate on one workstation--islands that can execute also remote from a central **workflow** server." Emphasis added. See also Bandat [4,33]: "Islands are parts of the **workflow** which are best to be described with the help of a **workflow** graph. They are comprising connected sub-parts of a **workflow** graph according to the following rules: (34) An island is formed by an aggregation of activities associated with the same physical or logical location attributes." (emphasis added). The term 'islands' thus corresponds to a set of activity nodes and 'aggregation' corresponds to the 'consolidation' of these activity nodes. This consolidation necessarily involves the information associated with the several activities and, *ipso facto*, must also be consolidated in order to consolidate (aggregate) activities. In addition, see at least Bandat [6,59]: "This implies that islands on one workstation can be executed consecutively by different user-names or user-roles, where one person may also act in different user roles." Note

that "one person" corresponds to a 'participant' in the instant claim. In Bandat [7,1]: "The island object contains the information which can optionally be downloaded to a physical workstation where the island can be executed." It is plain from the context that the element that *sends* corresponds to a server that *sends the consolidated information* to the *operating computer terminals*. Bandat [4,46] states: "Only islands are executable for which one and only one end user or end user role has been assigned to the execution of all activities in the island." (emphasis added) hence the aggregation into islands corresponds to the 'consolidation' of the instant claim.)

Bandat does not specifically teach the following limitations, but Deborin does as shown.

- *wherein when a form to be circulated in the workflow reaches a first one of the multiple consecutive nodes to be processed by the at least one participant, said workflow server consolidates information necessary for the at least one participant's determination, and wherein said workflow server generates a new form based on the consolidated information sends the new form with the consolidated information to the operating computer terminal for use by the at least one participant in make the participant's determination* (see at least Deborin, *et al.* page 12: "The BPM Server Repository is a content management solution that [ ] consolidates, and provides centralized storage of business process models, enterprise data and other corporate information." The "BPM Server" corresponds to the *workflow server.* Deborin, *et al.* on page 110 further refers to the term 'participant': "A role is a participant that performs a task in an organization's process []." Deborin, *et al.* further teaches on page 248: "The following steps must be completed: Consolidate Tasks performed by the same role into a single activity." Emphasis added. Thus, the term multiple nodes in the claim is equivalent to several tasks being performed by a single participant; hence, Deborin, *et al.* teaches that information pertaining to multiple tasks is consolidated and performed by a single participant for his/her determination. Finally, in at least Deborin, *et al.* on page 19 the phrase "Data can be routed to different applications, based on data values and rules encoding the way the enterprise conducts its business. The applications may be on different systems, running on different computers and different operating systems" is equivalent to the phrase in the limitation and sends the consolidated information [ ] to the

operating terminal. Also, Deborin [p.185] refers explicitly to a form "used as the output of this process" wherein the output is sent to the next node in the process. Examiner takes **as admitted prior art** that it is old and well-known as well as common place in the computer networking arts and present in the instant application that client/server architectures involve information (consolidated or not) that is sent from a server to a client (and vice versa) which, in this case, is equivalent to an operating computer terminal. Note however that Bandat [9,18] teaches the consolidation of data and in [9,55] the consolidation of data objects. Regarding the claim that the new form with the consolidated information is sent to the participant, Deborin [p.136] states "This information is now put onto the same Sales Order form, so we indicate this new "state" of the form by adding another Phi called "Sales Order Form". We will learn how to change the state of the Phi in "Add the data to the As-Is models" on page 155, where we assign data to objects." (emphasis added) where the form is clearly updated and obviously used by an appropriate user.)

- *consolidating means for consolidating the work items acquired by said means for acquiring to provide the at least one participant with consolidated information, wherein when the form to be circulated in the workflow reaches a first one of the multiple consecutive nodes to be processed by the at least one participant, said workflow server consolidates information necessary for the at least one participant's determination* (see the preceding paragraph.)*;*
- *means for storing a definition of nodes assigned to respective participants performing a workflow* (See at least Deborin page 17: "Business activities and data are depicted in Buildtime. The people that perform them and the local or client/server programs that support the people are also defined. [ ] All of this modeling information is then stored in the database of MQSeries Workflow Buildtime." Emphasis added. Again, in the instant application "activities" is equivalent to nodes, "modeling information" corresponds to the *definition of nodes*, and "people that perform them" corresponds to *participants performing a workflow*.)
- *means for acquiring from said means for storing, a plurality of work items, wherein each of the plurality of work items is selectable for each node within the consolidation range determined by said means for determining a range of consolidation* (See at least Deborin page 18: "For every

process instance, the server components of MQSeries Workflow navigate through the process and assign the work to the right person in the right sequence. [ ] Activities that need to be performed appear in worklists of the assigned users. When a staff member selects, for example, a program activity, the program attached to this activity is started with the necessary information. User worklists contain continuously updated overviews of pending activities." The act of 'updating' corresponds to the *means for acquiring* since this involves communication between client and server. The *work items selectable for each node* corresponds to "user worklists". Examiner further notes that Deborin generally describes the practice of a workflow server providing the *means for acquiring* information to be tasked to clients in a workflow system. See for example Deborin in at least page 17: "MQSeries Workflow is a client/server system and there are dedicated client and server components that are responsible for the different workflow management tasks.");

- *access permission setting means for setting access permission to each field at each node within the consolidation range determined by said consolidation range determining means* (See Deborin on page 510);
- *form generating means for generating a new form based on the access permission set by said access permission setting means and consolidating means* (Deborin [p.12] describes "individually defined user access levels" (emphasis added) and the BPM Server is an entity that 'consolidates' enterprise data and in Deborin [p.5] "Model the user interfaces: The business users and the IT development staff work together to create new application and management reporting interfaces and forms." (emphasis added) Also see Deborin page 353 which refers to system components that generate Java Server Pages which correspond to a *form* thus, the form generating means is based on access permission setting means and consolidating the work items means.); *and*
- *form sending means for sending the at least one participant the form generated by said form generating means* (See the rejection text in the previous limitation. Further, note that a 'server' sends information such as a *form*, but is equivalent to *providing, i.e., form sending means* and the *providing means* stated in claim 7 are equivalent).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bandat and Deborin because the efficiencies to be gained by consolidating information in a workflow as taught by Bandat with the attendant flexibility as taught in Deborin of combining tasks and creating new forms further increases the efficiencies of consolidation with respect to 'people that perform business activities' (Deborin p.12). Moreover, the benefits of "consolidate[ing] tasks performed by the same role" (Deborin, p.248) further enhances the efficiency of process modeling and associated tasks (as shown in Deborin p.9), and that both were known techniques at the time of the invention and that one of ordinary skill in the art would have recognized the value of combining these techniques and the benefits of such combination would have been predictable.

Neither Bandat nor Deborin specifically teach the following limitations, but Dewan does as shown.

- *means for determining a range of consolidating multiple consecutive nodes to be processed by one participant in the workflow* (See at least Dewan [abstract]: "...a new methodology that helps system designers determine the optimal set of tasks to be consolidated. [ ] Optimal design insights are obtained for both sequential and generic process structures." In Dewan, "new methodology" corresponds to the *means for* in the instant case and the term "sequential" corresponds to a set of *consecutive nodes*. See also Dewan page 289: "In a sequential process, every task is on the critical path..." Examiner notes that not every subset of *consecutive nodes* would be on a critical path (as in PERT/CPM formulations), but it would be obvious to those skilled in the art at the time of the invention utilize this same methodology to consolidate consecutive nodes that are not necessarily on a critical path in addition to those that are. As Dewan in at least page 289 further notes: "Most results obtained under sequential formulation are applicable to more generic cases..." (emphasis added) and therefore applicable to situations where consecutive nodes in a workflow graph are not on a critical path. Finally, the consolidations described in Dewan page 286 pertain to tasks performed by a single person (read *participant*): "When the processing task and the controlling task are combined, the same person becomes responsible for both tasks." Emphasis added.);

- *means for consolidating the work items acquired by said means for acquiring to provide the participant with consolidated information* (As shown above in the rejection of an earlier limitation of the instant claim, Dewan describes a methodology for consolidating work items and therefore corresponds to *means for consolidating the work items*).

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Deborin and Dewan and utilize the methodology in Dewan as a means for determining nodes (tasks) for consolidation in conjunction with the workflow system using a client/server type architecture as described in Deborin because it can improve the efficiency of workflow management systems and that the technological capability existed at the time of the invention to combine these features and the benefits of the resulting combination were predictable.

Claim 6:

Bandat does not specifically teach the following limitations, but Deborin, in an analogous art does as shown.

- *the definition of nodes includes information relating to access permission to each field at each of the nodes* (See at least Deborin page 510 which discusses "authorization rights…you can define a category for these processes [and] who is authorized for a certain process category…" The text further describes how these rights are "represented by the Function object in BPM Workbench." Here, a "function object" corresponds to a *definition of nodes*)*; and*
- *said workflow server further comprises highest-level access permission acquiring means for acquiring from said storage means the highest level of access permission to each field within the consolidation range determined by said consolidation range determining means* (Deborin as shown in the rejection of the previous limitation describes the system elements that help manage authorization rights for a certain process category. This rights management component is part and parcel of the workflow management system described in Deborin that necessarily involves components that provide storage means and acquiring means. Thus, given a set of fields which are data entry elements, hence part of a process, the "Category in Buildtime" can allow the user of the system to "manage authorization rights for Runtime…").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bandat and Deborin because the efficiencies to be gained by consolidating information as taught by Bandat with the attendant flexibility as taught in Deborin further increases the efficiencies of consolidation with respect to 'people that perform business activities' (Deborin p.12). Moreover, the benefits of "consolidate[ing] tasks performed by the same role" (Deborin, p.248) further enhances the efficiency of process modeling and associated tasks (as shown in Deborin p.9) and that the technological arts existed at the time of the invention and the benefits of the resulting combination were predictable..

Claim 13:

Neither Bandat nor Deborin specifically teach the following limitations, but Dewan does as shown.

- *wherein when there are multiple work items that are selectable for a certain node, some routes in all the routes determined for respective work items, which are contained in one route, or common part of all the routes is determined in said consolidation range determining step as the consolidation range* (Dewan on page 3 describes the method of consolidating tasks and using task numbers to establish what amounts to a *consolidation range*: "Pair-wise consolidations can represent consolidation of more than two tasks. For example, consolidating tasks 6, 7 and 8 can be represented as consolidating tasks 6 and 7 and tasks 7 and 8.")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bandat and Deborin because the efficiencies to be gained by consolidating information as taught by Bandat with the attendant flexibility as taught in Deborin further increases the efficiencies of consolidation with respect to 'people that perform business activities' (Deborin p.12). Moreover, the benefits of "consolidate[ing] tasks performed by the same role" (Deborin, p.248) further enhances the efficiency of process modeling and associated tasks (as shown in Deborin p.9) and that the technological arts existed at the time of the invention and the benefits of the resulting combination were predictable.

Claims 3:

Bandat does not specifically teach the following limitations, but Deborin, in an analogous art does as shown.

- *The workflow system of Claim 1, wherein the operating computer terminal sends said workflow server results of work performed by the at least one participant based on the consolidated information in the new form sent from said workflow server.* For purposes of this examination, the Examiner interprets the phrase: *…sends said workflow server results…* to be read as '*sends to said workflow server results…*" As noted in claim 2 above, it is well-established in the computer networking arts and in the present disclosure that client/server architectures typically involve client transmissions of data to a server. Moreover, Deborin, *et al.* in at least page 25 describes this in the context of workflow management systems: "Workflow server performance and reliability [ ] requires the concentration of incoming workflow client messages into a bigger data stream prior to being directly sent to the workflow server." Emphasis added. Regarding the claim that the new form with the consolidtated information is sent to the participant, Deborin [p.136] states "This information is now put onto the same Sales Order form, so we indicate this new "state" of the form by adding another Phi called "Sales Order Form". We will learn how to change the state of the Phi in "Add the data to the As-Is models" on page 155, where we assign data to objects." (emphasis added) where the form is clearly updated and obviously used by an appropriate user. Finally, Deborin, *et al.* on page 21 specifically refers to processed information sent from a client (read 'operating computer terminal') to a server: "Clients are responsible for executing the program activities that interact with users. Clients are also responsible for giving users access to the workflow management system, that is, access work items, access running processes, and monitor processes. The communication with servers is through MQSeries, using the client message layer of MQSeries Workflow.")

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Bandat and Deborin, *et al.* because communication between clients and servers

in workflow management systems pertaining to processed information provides the capability for greater control of information processes and can improve the efficiency of workflow management systems.

Claim 4:

Bandat does not specifically teach the following limitations, but Deborin, in an analogous art does as shown.

- *said workflow server performs individual processing on each of the multiple nodes based on the results of work performed by the participant and sent from the operating computer terminal to advance the workflow* (See at least Deborin page 22: "The server components coordinate and manage an MQSeries Workflow system and its clients." As noted above in claims 2 and 3, it is well-established in client/server architectures as in the disclosure of the instant application that communication and processing occur on both the client-side and server-side in such systems. Moreover, in Bandat the workflow server "Those parts, called "islands" can be interpreted or executed on the central **workflow** server…" As noted in the rejection of claim 1, 'islands' are formed "by an aggregation of activities associated with the same physical or logical location attributes." Emphasis added. Hence, the aggregation of activities corresponds to *multiple nodes* that are executed (processed) on a workflow server.)

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Bandat and Deborin, *et al.* because it is basic in the networking arts for servers to process information sent from clients (operating computer terminals) and since clients process consolidated information corresponding to *multiple nodes,* it is all the more obvious that any workflow system would benefit from server-side processing of work performed on a client when that involves use of consolidated information.)

Claim 7:

Bandat does not specifically teach the following limitations, but Deborin, in an analogous art does as shown.

- *said means for storing stores a layout definition of a form used for time of one participant's continuous activities* (Deborin page 353 describes "With this tool, you can create JSP layout

skeleton files for use with the MQSeries Workflow Web Client [ ]" wherein the "skeleton files" are stored in the "BPM Workbench" that is integrated with the BPM Server that constitute the MQSeries Workflow.)*; and*

- *providing means provides the at least one participant with a form formatted based on the form layout definition acquired from said means for storing and a field access permission acquired from said highest-level access permission acquiring means* (As shown in the rejection of claims 5 and 6 above, and further by Deborin as shown, integral components in workflow management systems are servers which constitute the *providing means* in that they transmit information regarding form formatting and layout. Deborin page 353 states: "The tool enables you to create a JSP file for each program activity, including the putting and setting of fields corresponding to the data structure of each activity.")

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to incorporate the teachings of Deborin into those of Bandat as it describes how form information is transmitted to clients and thus renders workflow management systems more useful in a corporate setting.

Claim 10:

Neither Bandat nor Deborin specifically teach the following limitations, but Dewan does as shown.

- *when there are multiple work items selectable for a certain node, if routes determined for respective work items have no inclusion relationship with one another, said consolidation range determining means determines common part of the routes as the consolidation range* (See the rejection of claim 9 above).

Claim 11:

Bandat does not specifically teach the following limitations, but Deborin does as shown.

- *said access permission setting means sets the highest level of access permission of the participant to each field defined on the form for each node as the access permission* (See Deborin page 21: "Clients are also responsible for giving users access to the workflow management system, that is, access work items, access running processes, and monitor processes.") *upon consolidation.*)

Deborin does not specifically address the setting of access permissions *upon consolidation*; however, Dewan as shown describes the consolidation of tasks (nodes) as further noted in the rejection of claim 5 that describes the *consolidation means* and *consolidated information.* Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Deborin pertaining to access permission setting means in the workflow management system described therein with the teachings of Dewan and the notion of task consolidation. Such combination would thereby improve the workflow efficiency (consolidation) while at the same time maintaining an efficient and effective level of data access security (permission setting).

Claim 14:

Bandat does not specifically teach the following limitations, but Deborin, in an analogous art does as shown.

- *determining the highest level of access permission to each field within the consolidation range from the workflow definition stored in the storage device* (See the rejection of the limitation in claim 11 *A workflow engine…*)*; and*
- *acquiring the layout definition of a form to be provided to the at least one participant from the workflow definition wherein a form as consolidation information is generated in said consolidation information providing step based on the access permission and the layout definition* (See the rejection of claim 7).

Neither Bandat nor Deborin specifically teach the following limitations, but Dewan does and describes the consolidation of tasks (nodes) as further noted in the rejection of claim 5 that describes the *consolidation means* and *consolidated information.* Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Deborin pertaining to access permission setting means in the Workflow Management System described therein with the teachings of Dewan and the notion of task consolidation. Such combination would thereby improve the workflow efficiency (consolidation) while at the same time maintaining an efficient and effective level of data access security (permission setting).

Claim 15:

Bandat does not specifically teach the following limitations, but Deborin does as shown.

- *receiving results of work performed by the at least one participant on the consolidated information; and storing in the storage device the participant's inputted field values and the at least one participant's selected work from the received results of work* (Deborin describes in detail many elements of workflow management systems and describes client/server architectures as they pertain to workflow management systems). Examiner further notes that such systems involve the steps of receiving and storing information as disclosed. Further, Deborin page 248 describes work where steps "Consolidate Tasks performed by the same role into a single activity" and thus addresses work performed on the consolidated information. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Deborin with that of Dewan because incorporating the use and function of consolidated information in the client/server workflow management system described in Deborin would enhance the efficiency and functionality of workflow management systems.

(10) Response to Argument

i. Application of *KSR International Co. v. Teleflex, Inc.*

The main issues in contention appear to be the sufficiency of the articulation of arguments in support of the obviousness rejections and whether those rejections comport with the requirements of the MPEP and recent court decisions. Applicant cites MPEP §2141, section III and the Supreme Court decision in *KSR International Co. v. Teleflex, Inc.*, 73 Fed. Reg. 57526 (2007) (hereinafter KSR) and the rationales in the aforementioned section III, to lay the foundations for proper obviousness rejections under 35 U.S.C. 103(a). Appellant states that Examiner "appears to be employing rationale (A). If Examiner has employed a different rationale under the Examination Guidelines, Appellant requests Examiner to clearly state the rationale being applied in an Examiner's Answer." (Appellant's Brief, p. 9 --- emphasis added).

In stating this ("the rationale"), Appellant appears to misconstrue the decision of the Court in attempting to 'shoehorn' the Examiner into restricting the obviousness rejections into one and only one of the rationales listed in KSR. MPEP 2143 under the listing of "exemplary rationales" (MPEP 2143) A --- G, states that "the list of rationales provided is not intended to be an all-inclusive list. Other rationales to support a conclusion of obviousness may be relied upon by Office personnel." (emphasis added). Thus, there is no prescribed format for articulating the rationales, only that they must be convincing to one of ordinary skill in the art and meet the requirements articulated under the MPEP, relevant statutes, regulations and court decisions. Consequently, the justifications for establishing the obviousness rejections, while similar to those articulated in KSR, may take a different form or emphasize different considerations. The claim mapping below and arguments that follow further articulate the reasons and justifications for the rejection of the Appellant's application.

ii. Claim Interpretation and Proper Construction

Appellant emphasizes that certain features of the instant claims and aspects of the Examiner's rationales rejecting those claims as lacking adequate articulation. Examiner however supplied this

articulation in the rejections in the form of claim mapping as shown below. As Appellant has requested such mapping, Examiner has supplied this mapping below with a further articulation showing how the various elements mapped and described establish the necessary rationales for rejecting the claims.

Examiner notes the reference to MPEP §1207.02(A)(1)(9)(e) as stated in Appellant's Brief (Appellant's Brief, p.12). The quotation that follows however is not the referenced section of the MPEP as indicated in Appellant's Brief. Examiner believes that Appellant actually intended to cite MPEP §1207.02(A)(9)(e). Examiner believes that Appellant is challenging the rejection as not satisfying the requirements under KSR because they believe the various elements of the claims cannot be found in the prior art. In particular, Appellant states "It is the position of Appellant that under M.P.E.P. 2141 and rationale (A) of the Examination Guidelines set forth therein, Examiner has not adequately articulated a finding that the prior art included each **properly construed** element claimed with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference." (Appellant's Brief, pp. 9-10---emphasis in the original). In stating this, Appellant clearly focuses on the elements of claim 1 pertaining to the generation of a new form based on consolidated information (see below) and maintains that such teaching, "properly construed", cannot be found in the cited prior art. As shown below however and in the remarks that follow, such teachings are indicated and are properly construed in the text which concerns the consolidation of tasks and information.

As required under §1207.02(A)(9)(e), the requisite claim mapping for independent claim 1 is as follows:

Claim Limitation	Prior Art Citation
operating computer terminals executing a workflow	Bandat [0029]: "communication between the central server and client workstations…" is described. Workstations are equivalent to 'operating computer terminals'
a workflow server connected with said operating computer terminals through a network to manage the workflow, wherein said workflow server consolidates information necessary for processing in multiple consecutive nodes to be processed by at least one participant operating one of said operating computer terminals	Bandat [6,59] states "This implies that islands on one workstation can be executed consecutively by different user-names or user-roles, were one person may also act in different user roles.", hence corresponds to *at least one participant operating one of said...terminals.* See at least Bandat [abstract]: "The invention identifies areas in a

	workflow graph that operate on one workstation--islands that can execute also remote from a central workflow server." Emphasis added. See also Bandat [4,33]: "Islands are parts of the workflow which are best to be described with the help of a workflow graph. They are comprising connected sub-parts of a workflow graph according to the following rules: (34) An island is formed by an aggregation of activities associated with the same physical or logical location attributes." (emphasis added). The term 'islands' thus corresponds to a set of activity nodes and 'aggregation' corresponds to the 'consolidation' of these activity nodes. This consolidation necessarily involves the information associated with the several activities and, *ipso facto*, must also be consolidated in order to consolidate (aggregate) activities. In addition, see at least Bandat [6,59]: "This implies that islands on one workstation can be executed consecutively by different user-names or user-roles, where one person may also act in different user roles." Note that "one person" corresponds to a 'participant' in the instant claim. In Bandat [7,1]: "The island object contains the information which can optionally be downloaded to a physical workstation where the island can be executed." It is plain from the context that the element that *sends* corresponds to a server that *sends the consolidated information* to the *operating computer terminals*. Bandat [4,46] states: "Only islands are executable for which one and only one end user or end user role has been assigned to the execution of all activities in the island." (emphasis added) hence the aggregation into islands corresponds to the 'consolidation' of the instant claim.
wherein when a form to be circulated in the workflow reaches a first one of the multiple consecutive nodes to be processed by the at least one participant, said workflow server consolidates information necessary for the at least one participant's determination, and wherein said workflow server generates a new form based on the consolidated information sends the new form with the consolidated information to the operating computer terminal for use by the at least one participant in make the participant's determination	Deborin, *et al.* page 12: "The BPM Server Repository is a content management solution that [ ] consolidates, and provides centralized storage of business process models, enterprise data and other corporate information." The "BPM Server" corresponds to the *workflow server.* Deborin, *et al.* on page 110 further refers to the term 'participant': "A role is a participant that performs a task in an organization's process []." Deborin, *et al.* further teaches on page 248: "The following steps must be completed: Consolidate Tasks performed by the same role into a single activity." (emphasis added). Thus, the term multiple nodes in the claim is equivalent to several tasks being performed by a single participant; hence, Deborin, *et al.* teaches that information pertaining to multiple tasks is consolidated and performed by a single participant for his/her determination. Finally, in at least

	Deborin, *et al.* on page 19 the phrase "Data can be routed to different applications, based on data values and rules encoding the way the enterprise conducts its business. The applications may be on different systems, running on different computers and different operating systems" is equivalent to the phrase in the limitation and sends the consolidated information [ ] to the operating terminal. Also, Deborin [p.185] refers explicitly to a form "used as the output of this process" wherein the output is sent to the next node in the process. Examiner takes **as admitted prior art** that it is old and well-known as well as common place in the computer networking arts and present in the instant application that client/server architectures involve information (consolidated or not) that is sent from a server to a client (and vice versa) which, in this case, is equivalent to an operating computer terminal. Note however that Bandat [9,18] teaches the consolidation of data and in [9,55] the consolidation of data objects. Regarding the claim that the new form with the consolidated information is sent to the participant, Deborin [p.136] states "This information is now put onto the same Sales Order form, so we indicate this new "state" of the form by adding another Phi called "Sales Order Form". We will learn how to change the state of the Phi in "Add the data to the As-Is models" on page 155, where we assign data to objects." (emphasis added) where the form is clearly updated and obviously used by an appropriate user.

It is worth noting and emphasizing, that the rationales and justifications for applying the prior art, indicating the meaning of the cited passages and the logical inferences to be drawn therefrom are, in part, stated in the rejection of the claim limitations and then further summarized in the concluding paragraphs at the end of each rejection.

ii(a). The Prior Art Teaches the Consolidation of Tasks.

The interpretation of the claims, consistent with proper construction, must be based on the meaning and purposes of the elements in the prior art. The prior art pertains to the art of workflow engineering where maximizing efficiency and eliminating redundancies are paramount. As shown in the claim mapping above and well-known in the art, workflow graphs are comprised of nodes that often represent tasks, activities, workflow stations, users or combinations thereof. Bandat describes workflow

graphs with sub-parts and workstations and 'islands'. See claim mapping chart above. The claimed invention, the consolidation of tasks, is further taught by Bandat [6,59]: "This implies that islands on one workstation can be executed consecutively by different user-names or user-roles, where one person may also act in different user roles." Note that "one person" corresponds to a 'participant' in the instant claim. In Bandat [7,1]: "The island object contains the information which can optionally be downloaded to a physical workstation where the island can be executed."

In addition to the teaching of Bandat, Deborin further concerns issues of workflow engineering and efficiency. As shown above, Deborin, a lengthy text devoted to workflow systems management, notes the elements of consolidated information (Deborin [p.12] as noted in the claim mapping above) and makes explicit reference to "Consolidat[ing] Tasks" (Deborin [p.248]).

ii(b). The Prior Art Teaches the Generation of a 'New Form'.

Appellant emphasizes that the prior art fails to teach the generation of a "**new form based on the consolidated information**" and the sending of "the **new form** with the consolidated information" (Appellant's Brief, p.10---emphasis in original). Indeed, this aspect appears to be the crux of Appellants' arguments. As stated and articulated in the claim mapping above, and in the Final Rejection, Deborin [p.248] states: "The following steps must be completed: Consolidate Tasks performed by the same role into a single activity." (emphasis added). Thus, the term multiple nodes in the claim is equivalent to several tasks being performed by a single participant; hence, Deborin, *et al.* teaches that information pertaining to multiple tasks is consolidated and performed by a single participant for his/her determination. Finally, Deborin [p. 19] states the phrase "Data can be routed to different applications, based on data values and rules encoding the way the enterprise conducts its business. The applications may be on different systems, running on different computers and different operating systems" is equivalent to the phrase in the limitation and sends the consolidated information [ ] to the operating terminal. Also, Deborin [p.185] explicitly refers to a form "used as the output of this process" wherein the output is sent to the next node in the process. As noted in the Final Office action and repeated above, both Bandat and Deborin teach consolidation of information. Indeed, Deborin [p.136] even notes this consolidated information in a

new 'form' such as a Sales Order form. Appellant emphasizes that this form however is not "new form based on consolidated information" (Appellant's Brief, p.11) and that the Sales Order is the 'same' form and merely in a 'new state' (Appellant's Brief, p.11).

As a matter of record, ample examples regarding such a sales order form which reflect modifications rendering it into a 'new form' are given. Deborin [p.30-1] states "An order-processing clerk prepares a paper form that contains relevant sales information [and after obtaining new information, the] clerk prepares a new, updated sales order that contains the credit-rating information..." (emphasis added). Further text illustrates the issues and frustration of employees having to "copying information from one form to another" (Deborin [p.102]) where the purposes stated in this prior art are to avoid unnecessary repetition of information copying and consolidate tasks and activities. Finally, Deborin [p.185] states "The sales report, in its new form (that is with an attached credit rating report) is then used as the output of this process" (emphasis added) where the attribute of a 'new form' is ascribed to augmented information.

Examiner believes that this 'hairsplitting' between whether a form is the same form or a new form is wholly unpersuasive. It requires an unrealistic and overly precise notion of what constitutes 'new information' and a new format of that information. In the context of old technologies, such as in paper forms, a new sheet of paper with a new arrangement of information can perhaps reasonably be understood as a 'new form'. In modern computer systems, however, a 'new form' can be established just based on a new combination of data or a changed data structure. Certainly, when any pre-existing information is modified, it is a new combination of information, hence a new form. To require otherwise would be tantamount to insuring that no information or arrangement thereof between new and old data objects are the same or have information in common. More realistically, any augmentation, editing or modification of some pre-existing information construct in a computer system could reasonably be construed as a new information construct especially when it is acknowledged as being in a new state as Appellant has so acknowledged. Indeed, Deborin makes explicit the concept of new data types and forms. Deborin [p.112] states:

Phi types

> A Phi type is a class or a group of Phis sharing a common factor — how the data or materials is communicated to the next Task (for example, XML Message, Paper Form, Electronic Form). Standardize Phi types and their associated bitmaps. The advantage of doing this is that the process model will communicate a consistent message.

This further reflects the maturity of the technology and concepts behind new workflow systems.

In any event, the notion of modified or new forms in the prior art is not limited to the particular passage noted above in Deborin concerning a "Sales Order" form. The notion of the 'form' is present in much of the texts concerning consolidating information. Indeed, interpreting the notion of a 'form' or 'new form' most broadly and, under this area of art known to one of ordinary skill, a form corresponds to and simply means 'formatted information' which the prior art teaches in numerous ways and contexts associated with the consolidation of information. As the prior art demonstrates, the idea of consolidating tasks and information to improve efficiency is well established. Deborin [p.248—Section 8.2] is devoted to "Conversion of the To-Be model" wherein the first step is "Consolidate Tasks performed by the same role into a single activity...Purge the repository of any information residue ... information ... no longer in use". Bandat [9,51] states "Several activities have to be performed while the workstation is still logically connected to the central computer, preparing for subsequent disconnected operation, These preparatory activities serve for identifying islands for the use of individual users of workstations, and for extracting, downloading and eventually consolidating the respective insurance data objects between the central computer and a workstation." (emphasis added) where the consolidation of data objects establishes a new data object wherein such data must have a certain format, hence form. Those of ordinary skill in the art would know that data objects require well defined methods (functions) and fields (data), thus any changed, consolidated data object, corresponds to a new form regarding the consolidated tasks. See also Bandat [11,35] concerning the consolidation "of activities and their resulting data". Finally, Dewan is wholly devoted to teachings pertaining to task consolidation. Dewan [abstract] illustrates the consolidation of tasks and "the supporting information technology". Dewan [p.293] further establishes the obviousness of the instant invention: "This paper presents a new methodology for workflow redesign through task consolidation in information intensive business processes. The proposed methodology

quantifies the cycle-time reduction benefits derived by adjacent task consolidation. It identifies the optimal subset of tasks to be consolidated while maintaining the information flows precedence constraints as imposed by the business process design requirements." (emphasis added).

Thus, the nexus of the notion of formatted information, *i.e.,* a form, and the transmission of such to neighboring nodes is taught in the prior art. The only differences between the instant invention and the prior art are that the prior art relates this concept of a new form for consolidated data as an ancillary feature of what is taught regarding the consolidation of tasks and information while the claimed invention of the Appellants relate in as an explicit feature described in the claim limitations. Nonetheless, this idea was taught in the prior art and is properly construed notwithstanding the fact that the concept is described among different pages within the prior art as opposed to the more succinct feature description of the claims.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Mark A. Fleischer /Mark A Fleischer/ 26 February 2011

Examiner, Art Unit 3624

/LYNDA C JASMIN/

Supervisory Patent Examiner, Art Unit 3624

Conferees:

Lynda Jasmin

/L. C. J./

Supervisory Patent Examiner, Art Unit 3688

Vincent Millin/vm/
Appeals Specialist